



## THOMAS BELL-WRIGHT INTERNATIONAL CONSULTANTS

In accordance with UKAS accreditation to ISO/IEC 17065 Certification is Hereby Granted

to

## Kuwait Gypsum Manufacturing and Trading Co.

Block No. 3, Street No. 1, Plot No. 49, Shuaiba Industrial Area, Al Ahmadi, Kuwait

for

### "Kuwait Gypsum Water-Fire Rated Ceiling Tiles and Partition Boards" (Test Method: ASTM E84-21a/22)

which, subject to limitations described on the following pages and continued listing on www.tbwcert.com, complies with Product Certification Scheme SD03 Exterior Wall Assemblies, Curtain Walls, Building Materials, Products & Assemblies

In witness whereof, this Certificate is issued this 27th day of March 2024



Sandy Dweik

**Chief Executive Officer** 

Nicholas Purcell
Director of Certification

Certificate Number: TBW0300895

Initial registration: November 30, 2023

Issued: March 27, 2024

File Name: WJ084\_CRT\_SD03RX\_895\_Issue2\_(f)

Expiration: November 29, 2025

Issue 2

This certificate and schedules are held in force by regular Factory Inspections by Thomas Bell-Wright International Consultants (TBWIC). Refer to www.tbwcert.com or contact TBWIC Certification Division to validate the current status of the Certification. This certificate remains the property of Thomas Bell-Wright International Consultants, POBox 26385, Dubai, UAE. Tel:+97148215777, Email: certification@bell-wright.com

Web: www.bell-wright.com

# "Kuwait Gypsum Water-Fire Rated Ceiling Tiles and Partition Boards"

A. Certification is given for "Kuwait Gypsum Water-Fire Rated Ceiling Tiles and Partition Boards" for Reaction to Fire performance to test standard ASTM E84-21a/22 – "Standard Test Method for Surface Burning Characteristics of Building Materials" for Flame Spread Index (FSI) and Smoke Developed Index (SDI), subject to the limitations stated herein. The summary of the scope of certification is stated below.

Table 1. Summary of the Scope of Certification

| Product Name/Reference  "Kuwait Gypsum Water-Fire Rated Partition Boards" | Reaction to Fire Performance                |                 | Report References  |
|---|---|-----------------|--|
|   | ce Result Standard                          |                 |  |
|   | Class A <sup>[1]</sup><br>(FSI: 0, SDI: 10) | ASTM E84-21a/22 | WJ085-1 Rev.0<br>WJ085-2 Rev.0<br>XF122-1 Rev.0<br>YA007 Rev.0 |
| "Kuwait Gypsum Water-Fire Rated<br>Ceiling Tiles"<br>(600 × 600 mm)       | Class A <sup>[1]</sup><br>(FSI: 5, SDI: 30) | ASTM E84-21a    | WJ085-3 Rev.0<br>YA007 Rev.0                                   |
| "Kuwait Gypsum Water-Fire Rated<br>Ceiling Tiles"<br>(1200 × 600 mm)      | Class A [1]<br>(FSI: 20, SDI: 20)           | ASTM E84-21a    | WJ085-4 Rev.0<br>YA007 Rev.0                                   |

<sup>(1)</sup> Certification is based on the ASTM E84-21a/22 test results, and classification is based on the International Building Code 2021, Section 803.1.2, according to the Flame Spread Index (FSI) and Smoke Developed Index (SDI).

- B. Readers of this document should be familiar with Reaction to Fire Testing and the requirements of ISO/IEC 17065:2012. The Certification will be listed on www.tbwcert.com while it remains current. This Certification is not valid if it is not so listed.
- C. The product is approved based on TBWIC Product Certification Scheme SD03 Exterior Wall Assemblies, Curtain Walls, Building Materials, Products & Assemblies (Issue 11), which includes pre-test sampling, evidence of performance (under report reference(s) in Table 1), Technical Verification and Proof of Performance, compliance to Factory Production Control requirements and surveillance & Re-certification Inspection/Audits.
- D. Limitations:
  - D.1. This Certification covers the specifications of the product as tested and described in Section E.
  - D.2. The test standards covered under this Certification were used to measure the response of materials, products, or system assemblies to heat and flame under controlled conditions. The results on their own shall not be used as the sole criteria for fire-hazard or fire-risk assessment of the materials, products, or system assemblies under actual fire conditions.
  - D.3. No variations are allowed in material composition and manufacturing process unless recognised and approved by this Certification.

D.4. This Certification pertains only to the product as tested. It does not extend to the construction build-up or assembly comprising the material.

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### D.5. This Certification does not address the following:

- a. Measurement of heat transmission
- b. Effect of aggravated flame spread behaviour of an assembly resulting from the proximity of combustible walls and ceilings
- c. Classification or definition of material as non-combustible
- d. Any Resistance to Fire rating
- e. The toxicity level of smoke developed during combustion
- f. Fire propagation characteristics when tested as large-scale façade cladding assembly
- g. Fire performance of panels having perforations or discontinuous surfaceCertification13

### E. Product Details

E.1. Reference: "Kuwait Gypsum Water-Fire Rated Partition Boards"

Description: Paper-faced Gypsum board

Component Details:

i. Paper facing (Fire-Exposed Side)
 Reference: "CARTON WALL IVORY"
 Weight Per Unit Area: 200 g/m² ± 3%

Colour: Pink Ivory Manufacturer: Alier SA

ii. Paper facing (Unexposed Side)
 Reference: "CARTON WALL GRAY"
 Weight Per Unit Area: 190 g/m² ± 3%

Colour: Green Grey Manufacturer: Alier SA

iii. Gypsum

Mix Design Reference: "KGM/QMS/IP-09, Rev 1"

Density: Refer to Table 2

iv. Adhesive

Reference: "Bluesil MH25 A2" Nominal Application Rate: 75 g/m²

Manufacturer: Elkem ASA

Table 2. Kuwait Gypsum Water-Fire Rated Partition Boards - Product variations

| Thickness (mm) | Density (kg/m³) |  |
|----------------|-----------------|--|
| 9 ± 0.4        | 8.4 ± 0.3       |  |
| 9.5 ± 0.4      | 8.5 ± 0.3       |  |
| 12 ± 0.4       | 9.6 ± 0.3       |  |
| 12.5 ± 0.4     | 10.24 ± 0.3     |  |
| 15 ± 0.4       | 12.50 ± 0.3     |  |
| 18 ± 0.4       | 16 ± 0.3        |  |
| 20 ± 0.4       | 16.4 ± 0.3      |  |

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Description: Gypsum tile with polyvinyl chloride (PVC) facing on exposed face and paper facing on unexposed face

#### Component Details:

PVC facing (Fire-Exposed Side)

Description: Polyvinyl Chloride (PVC) film

Thickness: 70 ± 5 microns

Colour: White

Manufacturer: Linyi Xinyalai New Materials Co. Ltd., China

ii. Paper facing (Unexposed Side)
 Reference: "CARTON WALL GRAY"
 Weight Per Unit Area: 190 g/m² ± 3%

Colour: Green Grey Manufacturer: Alier SA

iii. Gypsum

Mix Design Reference: "KGM/QMS/IP-09, Rev 1"

Density: Refer to Table 3

iv. Adhesive

Reference: "Aquence LD 2476" Application Rate: 104 g/m² Manufacturer: Henkel

**Table 3.** Kuwait Gypsum Water-Fire Rated Ceiling Tiles - Product variations

| Tile Size     | Thickness (mm) | Density (kg/m³) |
|---------------|----------------|-----------------|
| 600 × 600 mm  | 9 ± 0.4        | 730± 40         |
|               | 9.5 ± 0.4      | 780 ± 40        |
|               | 12 ± 0.4       | 800 ± 40        |
|               | 12.5 ± 0.4     | 820 ± 40        |
|               | 15 ± 0.4       | 840 ± 40        |
|               | 18 ± 0.4       | 870 ± 40        |
|               | 20 ± 0.4       | 890 ± 40        |
| 1200 × 600 mm | 9 ± 0.4        | 750 ± 40        |
|               | 9.5 ± 0.4      | 790 ± 40        |
|               | 12 ± 0.4       | 830 ± 40        |
|               | 12.5 ± 0.4     | 850 ± 40        |
|               | 15 ± 0.4       | 850 ± 40        |
|               | 18 ± 0.4       | 880 ± 40        |
|               | 20 ± 0.4       | 910 ± 40        |

F. Approved Manufacturing Location Block No. 3, Street No. 1, Plot No. 49, Shuaiba Industrial Area, P.O. Box 65451, Al Ahmadi, Kuwait

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